

ABSTRACT

A compiler mounted on a computer generates a first object code of a target method in a double precision mode in the floating-point computation. If the target method is found to be frequently called in a single precision mode and a runtime cost may be reduced by executing the target method in the single precision mode, a second object code of the target method is generated in the single precision mode. Alternatively, regardless of whether a target method to be compiled will be called by the double precision mode or the single precision mode in the floating-point computation, the object code is generated by setting the precision mode depending on the type of the computation within the target method. Then, a code for matching the precision mode is generated and added based on a relation between the target code and its caller method.